

***Attachment to notice of Allowance***

1. Applicants' amendments and arguments of 07/14/2009 are acknowledged. Claims 13, 16, 18, 24 and 27 have been amended.

***Status of Claims***

2. Claims 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29 are currently pending in this application. Claims 13, 14, 15, 16, 17, 19, are under consideration. Claims 18, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29 are withdrawn as being drawn to non-elected inventions.

***Rejections Withdrawn***

3. Rejections of claims 13-17 and 19 under 35 U.S.C. 102 (b) made in paragraph 12 of the office action mailed 02/13/2008 is withdrawn in view of applicants' amendments of 07/14/2009.

4. Rejections of claims 13, 14, 15, 17 and 19 under 35 U.S.C. 102 (b) made in paragraph 13 of the office action mailed 10/2/2007 is withdrawn in view of applicants' amendments of 07/14/2009.

5. Rejections of claims 13-17 under 35 U.S.C. 112 second paragraphs made in paragraph 8 of the office action mailed 4/14/2009 is withdrawn in view of applicants' amendments of 07/14/2009.

***Rejoinder of Process Claims***

6. Claims 13, 14, 15, 16, 17, 18 and 19 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 24-29 are, directed to the process of making the allowable product, previously withdrawn from consideration as a result of a restriction requirement, of 10/02/2007 hereby rejoined and fully examined for patentability under 37 CFR 1.104. Claims 20-23 are directed to the invention(s) different strains and have NOT been rejoined.

Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, **the restriction requirement of groups I and IV as set**

**forth in the Office action mailed on 10/02/2007 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, and 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

**EXAMINER'S AMENDMENT**

7. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tu A. Phan reg # 59,392 on 10/08/2009.

Please cancel claims 20, 21, 22, 23.

**Allowable Subject Matter**

8. The following is an examiner's statement of reasons for allowance:

Claims 13, 14, 15, 16, 17, 18, 19, 24, 25, 26, 27, 28 and 29 are allowed. Claims are renumbered 1-13.

The instant invention is directed to an isolated immunogenic, non-haemolytic *Actinobacillus pleuropneumoniae* (App) strain comprises at least one mutation in a transmembrane domain- encoding segment of the *apxIA* gene wherein the segment of the *apxIA* gene corresponds to nucleotides 886 to 945, nucleotides 697 to 759, or nucleotides 1105 to 1215 of SEQ ID NO. 1, and with or without at least one mutation in a transmembrane domain-encoding segment of the *apxIIA* gene, wherein the segment of the *apxIIA* gene corresponds to nucleotides 886 to 945, nucleotides 697 to 759, or nucleotides 1105 to 1215 of SEQ ID NO. 2

The closest prior art MacInnes US 6,019,984 and Prideaux US 6,472,183 fail to teach or disclose the particular **mutation in a transmembrane domain**- encoding segment of the *apxIA* gene wherein the segment of the ***apxIA* gene corresponds to nucleotides 886 to 945, nucleotides 697 to 759, or nucleotides 1105 to 1215 of SEQ ID NO. 1.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khatol Shahnan-Shah whose telephone number is (571)-272-0863. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert B. Mondesi can be reached on 571-272-0956.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Khatol S Shahnan-Shah/  
Examiner, Art Unit 1645  
November 05, 2009

/Robert B Mondesi/  
Supervisory Patent Examiner, Art Unit 1645